

REMARKS/ARGUMENTS

Pending claims 1-13 and 17-30 stand rejected under 35 U.S.C. §102(e) over U.S. Patent No. 6,510,508 (Zuraski). Applicants respectfully traverse the rejection. As to claim 1, Zuraski nowhere teaches either invalidating an entry of a filter if an update to the entry occurs during a context, or flushing a portion of a pipeline resource coupled to the filter corresponding to an address space including the entry. In this regard, the Office Action refers to col. 9, lns. 30-45 and col. 11, lns. 14-20 of Zuraski to contend presence of the claimed invalidating of an entry. However, nowhere do these or any other portions of Zuraski anywhere teach that an entry in flush filter 40 is invalidated if an update to the entry occurs during a context. Furthermore, nowhere does Zuraski anywhere teach flushing a portion of a pipeline resource corresponding to an address space including such an entry. In this regard, the Office Action refers to col. 9, lns. 48-61 of Zuraski. Neither this nor any other portion of Zuraski teaches such flushing of a portion of a resource. Instead, all that Zuraski teaches is that upon the occurrence of certain events, flush filter 40 causes a flush of a translation lookaside buffer (TLB) 39 in its entirety. *Id.*; *Id.* at col. 11, lns. 9-17. Accordingly, Zuraski does not teach flushing of only a portion of a pipeline resource, and certainly not a portion corresponding to an address space including an invalidated and updated entry of a filter. Accordingly, claim 1 and its dependent claims are patentable.

As to claim 6, for similar reasons Zuraski nowhere teaches flushing a portion of entries of a pipeline resource if one of the portion is updated during a context. For claim 6, the Office Action only refers to the same portions of Zuraski cited above with regard to claim 1. Because Zuraski nowhere teaches that its TLB has only a portion that is flushed if one of its entries is updated during a context, claim 6 and its dependent claims are patentable over Zuraski.

Independent claim 11 and its dependent claims are also patentable over Zuraski, at least for similar reasons. In this regard, the Office Action refers to the same portions of Zuraski described above with regard to claim 1. However, neither these nor any other portions of Zuraski anywhere teach that an entry in a pipeline resource is selectively flushed if a page table is updated during a context. Instead, as described above Zuraski teaches flushing the entire contents of a TLB on a context switch. Accordingly, claim 11 and its dependent claims are patentable.

As to claim 17, Zuraski nowhere teaches a pipeline resource having multiple address spaces that are each selectively flushable while the others are maintained. Instead, as described

above, the TLB of Zuraski is flushed in its entirety. Accordingly, claim 17 and its dependent claims are patentable.

With regard to independent claim 21, Zuraski nowhere teaches either dynamic partitioning of a filter into multiple partitions, nor where such partitions each correspond to one of multiple address spaces. In this regard, there is no teaching anywhere in Zuraski of dynamic partitioning. Instead, the cited portion of Zuraski (i.e., col. 10, lns. 27-65) merely sets forth the fixed structure of the flush filter of Zuraski. That is, while the circuitry of the flush filter shown in FIG. 3 of Zuraski and described in col. 10 includes different components, nowhere does Zuraski teach that such components are dynamically partitioned. In this regard, dynamic partitioning is described in the Specification as "partitioning of pipeline resources [that] may be modified during operation..." Specification, p. 3. Nowhere does Zuraski teach modifying partitioning of the components, and certainly not during operation.

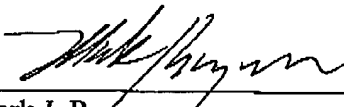
Further, Zuraski does not teach that these components are partitioned into partitions each corresponding to one of multiple address spaces. Instead, all that the Office Action cites in this regard is that a region table includes a CAM and a RAM to store addresses and tags. Nowhere however does Zuraski teach that such storage is partitioned such that each partition corresponds to only one of multiple address spaces, i.e., "a set of addresses in memory corresponding to a given application (e.g., a context)." Specification, p. 4. Accordingly, claim 21 and its dependent claims are patentable. For at least similar reasons, claim 25 and its dependent claims are patentable as Zuraski nowhere teaches the recited dynamic partitioning of a filter of a pipeline resource into multiple partitions each corresponding to one of multiple address spaces.

Independent claim 28 is patentable for similar reasons described above with regard to claim 17, as Zuraski nowhere teaches a pipeline resource with multiple address spaces each corresponding to one of multiple contexts, and where each of the address spaces is selectively flushable while the others are maintained. Accordingly, claim 28 and its dependent claims are patentable.

In view of these remarks, the application is now in condition for allowance and the Examiner's prompt action in accordance therewith is respectfully requested. The Commissioner is authorized to charge any additional fees or credit any overpayment to Deposit Account No. 20-1504.

Respectfully submitted,

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